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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,236	02/02/2002	Terence Chee Sung Chang	85447.000090	2772
23387	7590	04/06/2004	EXAMINER	
Stephen B. Salai, Esq. Harter, Secrest & Emery LLP 1600 Bausch & Lomb Place Rochester, NY 14604-2711			WILLIAMS, KEVIN D	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/066,236

**Applicant(s)**

CHANG ET AL.

**Examiner**

Kevin D. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-16 and 18-22 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 25 November 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7 and 15-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 recites "comparing a chosen feature of the calibration print to the distance that the print is moved" and claim 7 recites "the chosen feature being the fiducial mark closest to the cut edge." Claims 1 also recites "deriving a input signal representative of the difference between the chosen feature and the distance that the calibration print is moved." The specification does not describe comparing the fiducial mark closest to the cut edge to the distance that the print is moved and deriving an input signal of the difference between the mark closest to the cut edge and the distance that the calibration print is moved.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-16, 18, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks (US 4,960,336) in view of Diesch (US 4,163,405).

With respect to claims 1-7, Brooks teaches a method for calibrating at least one adjustable drive of an image printer comprising setting the adjustable drive of the printer to a first setting (col. 4, lines 40-62), printing a calibration print with the image printer, moving the calibration print with the adjustable drive 22 of the printer, comparing a chosen feature (distance B) of the calibration print to the distance that the print is moved by the adjustable drive, deriving an input signal representative of the difference between the chosen feature and the distance that the calibration print is moved by the adjustable drive (col. 9, lines 40-53), correcting the adjustable drive responsive to the input signal (col. 10, lines 15-30), the chosen feature being the print length, the adjustable drive being a stepper motor 22, setting the adjustable drive comprising setting the linear distance that the stepper motor moves the calibration print with each step (col. 4, lines 45-51), correcting the adjustable drive comprises changing the distance a stepper motor advances the calibration print for printing the calibration print (col. 9, line 54 to col. 10, line 20), and a pair a spaced fiducial marks, scanning means 64, a plurality of staggered fiducial marks (edge of sheet 14A and test symbol 12A) and the chosen feature being the distance between the fiducial marks.

Brooks does not teach a cutter, cutting the calibration print, the chosen feature being the cut length, cutting the calibration print to provide a cut edge adjacent one of

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the fiducial marks and the chosen feature being the fiducial mark closest to the cut edge.

Diesch teaches a cutter 58, cutting a calibration print, a chosen feature being the cut length, cutting the calibration print to provide a cut edge adjacent one of the fiducial marks and the chosen feature being the fiducial mark closest to the cut edge (col. 5, line 59 to col. 6, line 27).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brooks to have a cutter as taught by Diesch and to use an adjustable drive as taught by Brooks to determine a desired cut location, in order to make the printer more versatile by providing a cutter in the same device.

With respect to claims 8-14, Brooks teaches a method for calibrating at least one component of a printer comprising setting the adjustable component of the printer to a first setting (col. 4, lines 40-62), printing a calibration print with the image printer, scanning 64 the calibration print and measuring a feature (distance between edge of sheet 14A and test symbol 12A) of the calibration print that is affected by the setting of the adjustable component, adjusting the component in response to the measurement and setting a stored value in a controller operating the printer (col. 10, lines 15-30), setting the adjustable component comprises setting the linear distance the calibration print is moved with each step of a stepper motor (col. 4, lines 40-62), scanning the print involves measuring the print length (edge 14A to test symbol 12A) of the calibration print and adjusting the component in response to the measured print length, the calibration print having at least one fiducial mark (12A) and the scanning measures the

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intensity of the fiducial mark and adjusting the component comprises setting a fiducial sensor to produce a predetermined output (col. 5, line 60 to col. 6, line 22), the adjustable component comprises an adjustable drive 22 for moving the calibration print, the calibration print comprises first and second fiducial marks (14A,12A) and said adjusting comprises adjusting the drive so the linear distance the drive moves the print corresponds to the distance between the fiducial marks, the adjustable component comprises an adjustable drive for advancing the calibration print a preselected distance with respect to a printer, and the calibration print comprises a plurality of fiducial marks (14A,12A) spaced at predetermined distances from an edge of the calibration print.

Brooks does not teach cutting the calibration print, measuring the cut length, and causing the cutter to cut the print at a predetermined one of the fiducial marks.

Diesch teaches cutting a calibration print, measuring a cut length, and causing a cutter 58 to cut the print at a predetermined one of the fiducial marks (col. 5, line 59 to col. 6, line 27).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brooks to have a cutter as taught by Diesch and to use an adjustable drive as taught by Brooks to determine a desired cut location, in order to make the printer more versatile by providing a cutter in the same device.

With respect to claims 15, 16, 18, 19, and 21, Brooks teaches an apparatus for calibrating at least one component of a printer comprising an adjustable drive for moving a calibration print produced by a printer, the adjustable drive being set to a first preset setting for moving the print a predetermined distance (col. 4, lines 40-62), control

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means for comparing the actual distance the print is moved by the adjustable drive set at the first setting with a known distance (distance B) on the calibration print and deriving an input signal responsive to the difference (col. 9, lines 40-53) between the known distance on the calibration print and the actual distance the print is moved by the adjustable drive, an illuminator for illuminating the fiducial mark (col. 5, line 65 to col. 6, line 22), correcting means for adjusting the first preset setting responsive to the input signal and correcting the adjustable drive so the predetermined distance matches the known distance (col. 10, lines 15-30), the adjustable drive being a stepper motor 22 and the first preset setting comprises the linear distance that the stepper motor moves the print with each step (col. 4, lines 40-62), at least one fiducial mark 12A, a drive roller 28 for moving the calibration print the predetermined distance corresponding to the preset setting, a control means deriving the input signal responsive to the difference between the actual distance between the edge 14A and the test symbol 12A and the predetermined distance, a printer having an adjustable component preset to a first setting (distance print is moved to print test symbol 12A), a drive means 22 for moving a calibration print produced by the image printer, a controller including a scanner 64 for scanning the calibration print as it passes through the printer and measuring a feature (distance between 14A and 12A) of the calibration print affected by the setting of the adjustable component, the controller acting responsive to the measurement to change the preset setting of the adjustable component (col. 10, lines 15-30), the calibration print includes a pair of fiducial marks (14A,12A) spaced a known distance (B) apart, the adjustable component is a stepper motor drive 22 for moving the calibration print

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through the printer, the preset setting is the linear distance the stepper motor moves the calibration print with each step (col. 4, lines 40-62), the controller being operable to measure the distance between the spaced fiducial marks as the calibration print is moved through the printer by the stepper motor, the controller acting responsive to the measurement to change the preset setting to adjust the linear distance the stepper motor moves the calibration print with each step so the linear distance coincides with the known distance between the fiducial marks.

Brooks does not teach a cutter, and a knife for making a cut across the calibration print at the start and at the end of the predetermined distance.

Diesch teaches a cutter and a knife 58 for making a cut across the calibration print at the start and at the end of the predetermined distance (col. 5, line 59 to col. 6, line 27).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brooks to have a cutter as taught by Diesch and to use an adjustable drive as taught by Brooks to determine a desired cut location, in order to make the printer more versatile by providing a cutter in the same device.

4. Claims 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Diesch as applied to claims 1-16, 18, 19, and 21 above, and further in view of Tabor (US 6,018,687).

Brooks in view of Diesch does not teach scanning means having an adjustable output voltage that is adjusted to a preset voltage response to the illuminated intensity of the fiducial mark, the adjustable component being the intensity of the illumination of



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the fiducial mark, the first setting is a preset voltage setting related to a desired intensity of the illumination of the fiducial mark, controller acting responsive to a measurement to the actual fiducial mark illumination to adjust the preset voltage and thereby increase or decrease the illumination of the fiducial mark to produce the desired intensity.

Tabor teaches means having an adjustable output voltage (col. 4, lines 12-20) that is adjusted to a preset voltage response to the illuminated intensity of the fiducial mark, an adjustable component being the intensity of the illumination of the fiducial mark (col. 4, lines 12-20), the first setting being a preset voltage setting related to a desired intensity of the illumination of the fiducial mark, adjusting means (col. 4, lines 12-20) acting responsive to a measurement to the actual fiducial mark illumination to adjust the preset voltage and thereby increase or decrease the illumination of the fiducial mark to produce the desired intensity.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brooks in view of Diesch to have the adjustable illuminator as taught by Tabor, in order to accurately adjust the sensitivity of the sensors so that the print is properly cut.

### ***Response to Arguments***

5. Applicant's arguments filed 1/05/2004 have been fully considered but they are not persuasive.

With respect to the 35 U.S.C 112 rejection, applicant argues that there is a comparison of the fiducial mark closest to the cut edge to the distance that the print is

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moved and that an input signal representative of the difference between the fiducial mark and the distance moved is derived. Examiner would like to point out that, in view of the specification, it is the distance from the fiducial mark closest to the cut edge to another part of the print that is compared to the distance moved. A mark has no value and therefore an input signal representative of the difference between a mark and a distance cannot be derived. An input signal can only be derived from comparing and determining the difference between two distances.

Applicant argues that there is no calibration print in Diesch since the setting are determined from the actual photographic strip to be cut and not from some separate test strip. In response, the examiner notes that each strip to be cut is a calibration strip for that cut.

Applicant argues that there is no motivation to combine Diesch with Brooks. Diesch discloses and it is well known in the art that it is often advantageous to cut a print medium.

Applicant argues that the combination of Brooks and Diesch is irrelevant since the invention involves the calibration of the drive of a cutter and the combination of Brooks and Diesch would involve the calibration of a drive of a cutter/printer combination. The combination of Brooks and Diesch is not irrelevant because the combination meets the claimed limitations. It is not necessary that the combination of Brooks and Diesch teach **only** what is claimed by applicant.

Applicant claims that the cutter calibration in Diesch requires calibration for each strip and is not universal to all subsequent strips. The examiner does not rely of Diesch

for its teaching of calibrating a cutter drive. The combination modifies Brooks to have a cutter as taught by Diesch and to use an adjustable drive as taught by Brooks for the cutter to determine a desired cut location. In view of the teaching in Brooks of an adjustable drive, the combination modifies the cutter drive of Diesch to have the adjustable drive of Brooks.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin D. Williams whose telephone number is (571) 272-2172. The examiner can normally be reached on Monday - Friday, 8:30am - 6:00pm.

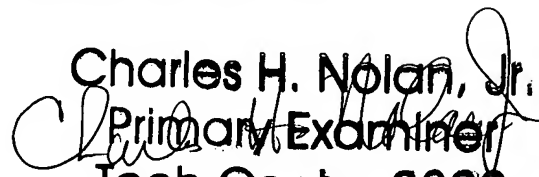
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KDW  
March 30, 2004

  
Charles H. Nolan, Jr.  
Primary Examiner  
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